Index

IEE Proceedings
Microwaves, Antennas and Propagation

Vol. 142, 1995

Author Index

A

Ahmadpanah, M. p364
Aitchison, C.S. p489
Alford, M.McN. p26
Ali, A.A. p156
Ando, M. p145, p289
Antar, Y. p178
Apollonskii, S.M. p89
Arnold, D.V. p326
Au, T.M. p485

B

Barton, S.K. p115
Batchelor, J.C. p151
Baudrand, H. p364
Benzina, H. p364
Bhaskara Rao, S.V. p295
Biffi Gentili, G. p225
Bornemann, J. p345
Bosisio, R.G. p71, p477
Bowling, D.R. p462
Bucci, O.M. p467
Burnside, W.D. p19

C

Carpentier, J.F. p275
Chakrabarty, S.B. p350
Chen, C.H. p357
Chow, Y.L. p81, p472
Clarricoats, P.J.B. p121, p220
Cloete, J.H. p35
Coccioli, R. p183
Cook, G.G. p462

D

D'Agostino, S. p75, p97
Das, B.N. p350
D'Elia, G. p467
Djurdjevic, D.Z. p213

E

El-Rabaie, S. p417
Erez, E. p245
Erofeenko, V.T. p89

F

Fan, Z. p57
Faraji-Dana, R. p81, p472
Ferrara, G. p441
Filipovic, D. p492
Fouad Hanna, V. p364
Frezza, F. p47

G

Gau, J.-R.J. p19
Ge, J.X. p333
Ghannouchi, F.M. p417
Gheri, G. p41
Gibson, A.A.P. p282
Golias, N.A. p457
Goto, N. p145, p289
Guglielmi, M. p41, p47
Guo, W. p257
Guo, Y.J. p115
Gupta, N. p411

H

Hajji, R. p417
Hasegawa, H. p251
Hassan, E.E. p168
Hassani, H.R. p7
He, C. p63
He, J. p63
He, S. p52, p429
Heiszajn, J. p67
Hildebrand, L.T. p314
Hristov, H.D. p452
Huang, F. p389
Huang, X.-Z. p109
Hum, P.J. p379
Hunter, I.C. p265
Huret, F. p275

I

Inatani, J. p339
Ivrissimtzis, I.P. p26

J

Jassim, A.M. p452
Jin, Y.-Q. p109

K

Kajfez, D. p369
Kamenetskii, E.O. p240
Karamitsos, N. p282
Ke, J.-Y. p357
Kempel, L.C. p233
Kennis, P. p275
Khairuddin, I.U. p265
Khamas, S.K. p462
Kiang, J.-F. p307
Kooi, P.S. p379
Kouki, A.B. p417
Kumar, T.R.V. p295

L

Laheurte, J.M. p421
Lai, A.K.Y. p285, p300
Lampariello, P. p47
Lancaster, M.J. p26
Langley, R.J. p151, p193
Lee, K.F. p485
Legay, H. p173
Leoncini, M. p399
Leong, M.S. p379
Leviatan, Y. p245
Li, Z. p257
Lin, W. p63
Litva, J. p78, p495
Liu, J.C. p192
Liu, P.T.S. p373
Luk, K.M. p189, p285, p300, p485
Luo, Y.L. p414

M

Maci, S. p225, p399
Manara, G. p183
Marchetti, S. p421
Mattia, F. p441
McNamara, D.A. p314
Michalski, K.A. p269
Mirshekar-Syahkal, D. p7
Moazzam, M.R. p489
Monk, A.D. p121, p220
Monorchio, A. p183
Moore, J. p14
Mosig, J.R. p269

N

Navarro, E.A. p495
Neve, M.J. p447
Noerpel, A.R. p93
Noguchi, T. p339
Norgren, M. p52
Notaros, B.M. p207

O

Olver, A.D. p394

P

Paoloni, C. p75, p97
Parker, E.A. p193
Paul, A. p93
Pelosi, G. p183
Pennock, S.R. p57
Philips, B. p193
Piazzesi, P. p225
Poljak, D. p435
Popovic, B.D. p207, p213
Posa, F. p441
Prasad, M.V.S.N. p295
Pribetich, P. p275
Punyaseshudu, D. p295

R

Ragheb, H.A. p168
Rao, D.N. p295
Reddy, K.K. p295
Riabi, M.L. p364
Riblet, G.P. p384
Roje, V. p435
Romito, G. p467
Rousta, M. p421
Rowe, G.B. p447
Ruan, C. p63

S

Safavi-Naeini, S. p472
Salvador, C. p225
Sangary, N.T. p495
Sangster, A.J. p1
Sebak, A. p178
Sebak, S. p319
Seker, S.S. p201
Selfridge, R.H. p326
Shafai, L. p173
Shi, S.C. p339
Shimasaki, H. p251
Shuguang Chen p145, p289
Shum, S.M. p189
Simons, N.R.S. p319
Singh, M. p411
Sliva, R.J. p233
Strom, S. p429
Stubbs, M. p71
Sule-Koiki, A. p93
Sunada, K. p339
Syed, J.U.I. p394

T

Tam, W.Y. p285, p300
Tan, H.S. p405
Tan, S.Y. p405
Theron, I.P. p35
Toccafondi, A. p399
Tong, K.F. p485
Tripathi, V.K. p71
Tsiboukis, T.D. p457
Tsounis, B. p67
Tsutsumi, M. p251

V

Vanhoenacker-Janvier, D. p102
Vasseur, H. p102
Volakis, J.L. p233
Voles, R. p498

W

Wang, H. p1
Warnick, K.F. p326
Warrington, E.M. p136
Webb, J.P. p373
West, M.A. p14
Westcott, B.S. p129
Wu, C. p78, p495
Wu, K. p71
Wu, K.-L. p78
Wu, X. p257
Wu, X.B. p163

X

Xu, S. p257
Xu, Y. p477

Y

Yeo, T.S. p379
Yioultsis, T.V. p457
Yuan, N. p63

Z

Zaporozhets, A.A. p129
Zhang, W. p481
Zhuang, Y. p78

ADAPTIVE CONTROL

Adaptive null formation with a reconfigurable reflector antenna p220

AMPLIFIERS

Comparison between MMIC matrix and distributed amplifiers p75
High-gain microwave amplifier tuneable over a decade bandwidth p489
Innovative power distributed amplifier using the Wilkinson combiner p97
Modified determinations of stability criteria for accurate design of the linear two-port amplifiers p192

ANTENNA ACCESSORIES

Analysis and design of circularly polarised series fed planar subarrays p173
Cavity feed technique for slot-coupled microstrip patch array antenna p452
Discrete complex image MPIE analysis of coax-fed coupled vertical monopoles in grounded dielectric substrate: two formulations p269
Dual-band slot-loaded patch antenna p225
Microstrip ring antennas operating at higher order modes for mobile communications p151
Moment method analysis of a horizontally polarised omnidirectional slot array antenna p1
Phase efficiency of the reflective array antenna p115
Reconfigurable reflector antenna producing pattern nulls p121
Variable beamwidth reflector antenna by feed defocusing p394

ANTENNA ARRAYS

Analysis and design of circularly polarised series fed planar subarrays p173
Analysis of aperture-coupled microstrip antenna and array with an airgap p485
Cavity feed technique for slot-coupled microstrip patch array antenna p452
Improving efficiencies of superdirective arrays of monopoles over lossy ground-planes by using superconducting disc overlays p462
Linear phase arrays based on slitted asymmetric ridge waveguides p47
Measurements of direction of arrival of HF sky wave signals by means of a wide aperture antenna array and two super resolution direction finding algorithms p136
Microstrip ring antennas operating at higher order modes for mobile communications p151
Modelling studies of microstrip reflectarrays p78
Moment method analysis of a horizontally polarised omnidirectional slot array antenna p1
Phase efficiency of the reflective array antenna p115
Power synthesis of conformal arrays by a generalised projection method p467
Radiation by cavity-backed antennas on a circular cylinder p233
Spherical shell and volume arrays p498
Supergain printed arrays of closely spaced dipoles made of thick film high-T_c superconductors p26
Verification of spatial domain integral-equation analysis of microstrip wire-grid arrays p314

ANTENNA THEORY

Analysis of a coupled patch antenna with application in personal communications p495
Analysis of aperture-coupled microstrip antenna and array with an airgap p485
Analytical expressions for reflection coefficients of artificially soft and hard surfaces: dielectric slab loaded with a periodic array of strips over a ground plane p145
Boundary-element approach to calculation of wire antenna parameters in the presence of dissipative halfspace p435
Cylindrical rectangular microstrip antennas with coplanar parasitic patches p300
Dual-reflector synthesis based on analytical gradient-iteration procedures p129
Entire-domain analysis of thin-wire antennas near or in lossy ground p213
Improved frequency domain analysis of microstrip circuits by the method of moments p421
Improving efficiencies of superdirective arrays of monopoles over lossy ground-planes by using superconducting disc overlays p462
Input impedance of spherical microstrip antenna p285
Linear phase arrays based on slitted asymmetric ridge waveguides p47
Moment method analysis of a horizontally polarised omnidirectional slot array antenna p1
Phase efficiency of the reflective array antenna p115
Power synthesis of conformal arrays by a generalised projection method p467
Radiation by cavity-backed antennas on a circular cylinder p233
Radiation characteristic of slots on conducting circular cylinder covered by eccentric dielectric cylinder p168
Ray tracing analysis of the transmission performance of curved FSS p193
Reconfigurable reflector antenna producing pattern nulls p121
Resonance properties of cylindrical rectangular patch with composite ground plane p307
Simplified analysis of coated wire antennas and scatterers p14
Spherical shell and volume arrays p498
Study of electromagnetically coupled stacked rectangular patch antennas p7
Verification of spatial domain integral-equation analysis of microstrip wire-grid arrays p314

BROADCASTING

Measurements of direction of arrival of HF sky wave signals by means of a wide aperture antenna array and two super resolution direction finding algorithms p136

CABLES AND OVERHEAD LINES

Discrete complex image MPIE analysis of coax-fed coupled vertical monopoles in grounded dielectric substrate: two formulations p269
Evaluation of cut-off frequencies of higher order modes in eccentric coaxial line p350

CALIBRATION

Backscattering study on non-orthogonal trihedral corner reflectors p441

CIRCUIT CAD

Accurate and efficient CAD tool for the design of optimum packaging for (M)MICs p81

CIRCUIT COMPONENTS

Frequency characteristics and bandwidth enhancement of artificially soft and hard surfaces p289
Performance and analysis of an aluminium nitride isolation resistor p282

CIRCUIT THEORY AND DESIGN

Accurate and efficient CAD tool for the design of optimum packaging for (M)MICs p81
Innovative power distributed amplifier using the Wilkinson combiner p97

COMPUTER APPLICATIONS

Accurate and efficient CAD tool for the design of optimum packaging for (M)MICs p81

DIELECTRIC MATERIALS AND DEVICES

Calculation of dielectric resonators with complicated constitutive parameters p477
Computation of coupling between whispering gallery mode dielectric resonators and a microstrip transmission line p265
Frequency characteristics and bandwidth enhancement of artificially soft and hard surfaces p289
Ray tracing analysis of the transmission performance of curved FSS p193
Simplified analysis of coated wire antennas and scatterers p14

EARTH SCIENCES

Scattering and emission from two-scale randomly rough sea surface with foam scatterers p109

ELECTROMAGNETIC THEORY

Adaptive null formation with a reconfigurable reflector antenna p220
Analysis and design of circularly polarised series fed planar subarrays p173
Analysis of electromagnetic scattering by artificially soft discs p399
Analytical expressions for reflection coefficients of artificially soft and hard surfaces: dielectric slab loaded with a periodic array of strips over a ground plane p145
Application of the transmission line matrix method to the analysis of scattering by three-dimensional objects p319
Backscattering study on non-orthogonal trihedral corner reflectors p441
Computational analysis of scattering by penetrable oblate spheroids using a model of dipoles located in complex space p245
Coplanar coupled lines: the effects of the presence of the lateral ground planes, upper and lower ground planes, and the V-shaped microshield ground walls p63
Electromagnetic scattering from anisotropically coated impedance cylinder p163
Entire-domain polynomial approximation of volume currents in the analysis of dielectric scatterers p207
Frequency characteristics and bandwidth enhancement of artificially soft and hard surfaces p289
General scheme for electromagnetic reflection and transmission for composite structures of complex materials p52
Multiple scattering by parallel conducting elliptic cylinders: TE case p178
New closed-form expression for coupling matrix elements related to scattering from planar periodic single-strip grating p492
New polarimetric calibration technique using a single calibration dihedral p19
Optimisation approach to the time-domain electromagnetic inverse problem for a bi-isotropic slab p429
Optimum hop length for millimetre wave radio links in an arid climate p156
Prediction of scintillation effects on satellite communications above 10 GHz p102
Ray tracing analysis of the transmission performance of curved FSS p193
Scattering and emission from two-scale randomly rough sea surface with foam scatterers p109
Scattering from a wedge with cavity backed apertures in its faces and related configurations: TE case p183
Simplified analysis of coated wire antennas and scatterers p14
Study of path inclination effects on performance of LOS microwave links in southern India p295

ELECTROMAGNETISM

Analysis of electromagnetic scattering by artificially soft discs p399
Application of the transmission line matrix method to the analysis of scattering by three-dimensional objects p319
Computational analysis of scattering by penetrable oblate spheroids using a model of dipoles located in complex space p245
Electromagnetic boundary conditions and differential forms p326
Electromagnetic scattering from anisotropically coated impedance cylinder p163
Entire-domain polynomial approximation of volume currents in the analysis of dielectric scatterers p207
General scheme for electromagnetic reflection and transmission for composite structures of complex materials p52
Impedance boundary conditions for anisotropic bodies p89
Multicomponents discrete propagation model of forest p201
Multiple scattering by parallel conducting elliptic cylinders: TE case p178
New closed-form expression for coupling matrix elements related to scattering from planar periodic single-strip grating p492
Optimisation approach to the time-domain electromagnetic inverse problem for a bi-isotropic slab p429
Scattering and emission from two-scale randomly rough sea surface with foam scatterers p109
Scattering from a wedge with cavity backed apertures in its faces and related configurations: TE case p183

FILTERS AND FILTERING

Novel slow-wave structure for narrow-band quasi-transversal filters p389
Waveguide bandpass filter of millimetre waves using polycrystalline yttrium iron garnet p251

INTEGRATED CIRCUITS

Comparative study on electrical performance of normal and superconducting multiconductor lines for high-speed interconnects and uniplanar MICs p71
Comparison between MMIC matrix and distributed amplifiers p75

INTERFERENCE SUPPRESSION

Adaptive null formation with a reconfigurable reflector antenna p220
Coplanar coupled lines: the effects of the presence of the lateral ground planes, upper and lower ground planes, and the V-shaped microshield ground walls p63

LINEAR NETWORK ANALYSIS

High-gain microwave amplifier tuneable over a decade bandwidth p489
Modified determinations of stability criteria for accurate design of the linear two-port amplifiers p192

MAGNETIC MATERIALS AND DEVICES

Frequency characteristics and bandwidth enhancement of artificially soft and hard surfaces p289
Waveguide bandpass filter of millimetre waves using polycrystalline yttrium iron garnet p251

MATERIALS AND MATERIALS TESTING

General scheme for electromagnetic reflection and transmission for composite structures of complex materials p52
Resonance properties of cylindrical rectangular patch with composite ground plane p307

MATHEMATICAL TECHNIQUES

Analysis of electromagnetic scattering by artificially soft discs p399
Dual-reflector synthesis based on analytical gradient-iteration procedures p129
Electromagnetic scattering from anisotropically coated impedance cylinder p163
Entire-domain polynomial approximation of volume currents in the analysis of dielectric scatterers p207
General scheme for electromagnetic reflection and transmission for composite structures of complex materials p52
Impedance boundary conditions for anisotropic bodies p89
Multiple scattering by parallel conducting elliptic cylinders: TE case p178
New closed-form expression for coupling matrix elements related to scattering from planar periodic single-strip grating p492
New polarimetric calibration technique using a single calibration dihedral p19
Optimisation approach to the time-domain electromagnetic inverse problem for a bi-isotropic slab p429
Scattering and emission from two-scale randomly rough sea surface with foam scatterers p109
Scattering from a wedge with cavity backed apertures in its faces and related configurations: TE case p183

MEASUREMENT OF SPECIFIC VARIABLES

High Q-factor open resonator measurement system for 94 GHz waveband applications p414
Measurements of direction of arrival of HF sky wave signals by means of a wide aperture antenna array and two super resolution direction finding algorithms p136
Multicomponents discrete propagation model of forest p201
Optimum hop length for millimetre wave radio links in an arid climate p156
Performance and analysis of an aluminium nitride isolation resistor p282
Q-factor measurement with a scalar network analyser p369

MEASUREMENT SCIENCE

Backscattering study on non-orthogonal trihedral corner reflectors p441
New polarimetric calibration technique using a single calibration dihedral p19

MICROWAVE CIRCUITS

Accurate and efficient CAD tool for the design of optimum packaging for (M)MICs p81
Comparative study on electrical performance of normal and superconducting multiconductor lines for high-speed interconnects and uniplanar MICs p71
Comparison between MMIC matrix and distributed amplifiers p75
Experimental investigation of the 'post mount' structure in waveguide-type SIS mixers p339
High-gain microwave amplifier tuneable over a decade bandwidth p489
Innovative power distributed amplifier using the Wilkinson combiner p97

MICROWAVE MEASUREMENT TECHNIQUES

High Q-factor open resonator measurement system for 94 GHz waveband applications p414
Performance and analysis of an aluminium nitride isolation resistor p282
Q-factor measurement with a scalar network analyser p369
Scattering and emission from two-scale randomly rough sea surface with foam scatterers p109

MODULATORS AND DEMODULATORS

Experimental investigation of the 'post mount' structure in waveguide-type SIS mixers p339

NUMERICAL ANALYSIS

Accurate and efficient CAD tool for the design of optimum packaging for (M)MICs p81
Adaptive null formation with a reconfigurable reflector antenna p220
Analysis of 3D microwave cavities using hierarchal vector finite elements p373
Analysis of a coupled patch antenna with application in personal communications p495
Analysis of electromagnetic scattering by artificially soft discs p399
Analytical expressions for reflection coefficients of artificially soft and hard surfaces: dielectric slab loaded with a periodic array of strips over a ground plane p145
Application of the transmission line matrix method to the analysis of scattering by three-dimensional objects p319
Boundary-element approach to calculation of wire antenna parameters in the presence of dissipative halfspace p435
Comparison between a quasistatic space-domain analysis and a full-wave spectral-domain analysis for high-frequency interconnecting crossover in multilayered dielectric media p275
Complete scattering parameter characterisation by FDTD method of Y-junction power dividers with small output angles p379
Cylindrical rectangular microstrip antennas with coplanar parasitic patches p300
Discrete complex image MPIE analysis of coax-fed coupled vertical monopoles in grounded dielectric substrate: two formulations p269
Dual-reflector synthesis based on analytical gradient-iteration procedures p129
Eigensusceptances and eigenreactances of symmetrical waveguide inductive obstacles using the finite element method p384
Electromagnetic scattering from anisotropically coated impedance cylinder p163
Entire-domain analysis of thin-wire antennas near or in lossy ground p213
Entire-domain polynomial approximation of volume currents in the analysis of dielectric scatterers p207
Hybrid mode analysis of parallel coupled inset dielectric guides p57
Impedance boundary conditions for anisotropic bodies p89
Improved frequency domain analysis of microstrip circuits by the method of moments p421
Improving efficiencies of superdirective arrays of monopoles over lossy groundplanes by using superconducting disc overlays p462
Input impedance of spherical microstrip antenna p285
Measurements of direction of arrival of HF sky wave signals by means of a wide aperture antenna array and two super resolution direction finding algorithms p136
Modelling studies of microstrip reflectarrays p78
Moment method analysis of a horizontally polarised omnidirectional slot array antenna p1
Multimode equivalent network representation of inductive and capacitive multiple posts p41
Multiple scattering by parallel conducting elliptic cylinders: TE case p178
New closed-form expression for coupling matrix elements related to scattering from planar periodic single-strip grating p492
Numerical study of a cylindrical dielectric-resonator antenna coated with a dielectric layer p189
On the surface impedance used to model the conductor losses of microstrip structures p35
Optimisation approach to the time-domain electromagnetic inverse problem for a bi-isotropic slab p429
Performance and analysis of an aluminium nitride isolation resistor p282
Performance of the LSBRM using efficient weighting functions for planar structures p364
Power handling capability of a HTS stripline structure using an efficient interior-exterior Green's function method p472
Radiation by cavity-backed antennas on a circular cylinder p233
Radiation characteristic of slots on conducting circular cylinder covered by eccentric dielectric cylinder p168
Resonance properties of cylindrical rectangular patch with composite ground plane p307
Scattering and emission from two-scale randomly rough sea surface with foam scatterers p109
Scattering characteristics of rectangular coaxial line discontinuities p257
Scattering from a wedge with cavity backed apertures in its faces and related configurations: TE case p183
Simplified analysis of coated wire antennas and scatterers p14
Study of electromagnetically coupled stacked rectangular patch antennas p7
Vector complex eigenmode analysis of microwave cavities p457
Verification of spatial domain integral-equation analysis of microstrip wire-grid arrays p314

OPTIMISATION

Dual-reflector synthesis based on analytical gradient-iteration procedures p129
Optimisation approach to the time-domain electromagnetic inverse problem for a bi-isotropic slab p429

PRODUCTION ENGINEERING

Accurate and efficient CAD tool for the design of optimum packaging for (M)MICs p81
Optimum hop length for millimetre wave radio links in an arid climate p156

RADAR AND RADIONAVIGATION

New polarimetric calibration technique using a single calibration dihedral p19
Scattering and emission from two-scale randomly rough sea surface with foam scatterers p109

RADAR THEORY

Backscattering study on non-orthogonal trihedral corner reflectors p441
Electromagnetic scattering from anisotropically coated impedance cylinder p163
New polarimetric calibration technique using a single calibration dihedral p19
Scattering and emission from two-scale randomly rough sea surface with foam scatterers p109
Simplified analysis of coated wire antennas and scatterers p14

RADIO SYSTEMS

A more rigorous UTD-based expression for multiple diffractions by buildings p481
Analysis of a coupled patch antenna with application in personal communications p495
Dual-reflector synthesis based on analytical gradient-iteration procedures p129
Microstrip ring antennas operating at higher order modes for mobile communications p151
Mobile radio propagation prediction in irregular cellular topographies using ray methods p447
Modelling and measurements of channel impulse response for an indoor wireless communication system p405
Multiple aperture higher order mode couplers: analysis and design p93
Optimum hop length for millimetre wave radio links in an arid climate p156
Prediction of scintillation effects on satellite communications above 10 GHz p102
Reconfigurable reflector antenna producing pattern nulls p121
Study of path inclination effects on performance of LOS microwave links in southern India p295

RADIOWAVE PROPAGATION

A more rigorous UTD-based expression for multiple diffractions by buildings p481
Measurements of direction of arrival of HF sky wave signals by means of a wide aperture antenna array and two super resolution direction finding algorithms p136
Mobile radio propagation prediction in irregular cellular topographies using ray methods p447
Modelling and measurements of channel impulse response for an indoor wireless communication system p405
Multicomponents discrete propagation model of forest p201
Optimum hop length for millimetre wave radio links in an arid climate p156
Prediction of scintillation effects on satellite communications above 10 GHz p102
Study of path inclination effects on performance of LOS microwave links in southern India p295

SEMICONDUCTOR DEVICE MODELLING

Large-signal temperature-dependent DC model for heterojunction bipolar transistors p417

SEMICONDUCTOR DEVICES AND MATERIALS

Comparative study on electrical performance of normal and superconducting multiconductor lines for high-speed interconnects and uniplanar MICs p71
Large-signal temperature-dependent DC model for heterojunction bipolar transistors p417
Single-cavity abreast two-device power combiner p333

SIGNAL PROCESSING

Measurements of direction of arrival of HF sky wave signals by means of a wide aperture antenna array and two super resolution direction finding algorithms p136

SINGLE ANTENNAS

Adaptive null formation with a reconfigurable reflector antenna p220
Analysis of a coupled patch antenna with application in personal communications p495
Analysis of aperture-coupled microstrip antenna and array with an airgap p485
Boundary-element approach to calculation of wire antenna parameters in the presence of dissipative halfspace p435
Discrete complex image MPIE analysis of coax-fed coupled vertical monopoles in grounded dielectric substrate: two formulations p269
Dual-band slot-loaded patch antenna p225
Dual-reflector synthesis based on analytical gradient-iteration procedures p129
Entire-domain analysis of thin-wire antennas near or in lossy ground p213
Input impedance of spherical microstrip antenna p285
Numerical study of a cylindrical dielectric-resonator antenna coated with a dielectric layer p189
Radiation characteristic of slots on conducting circular cylinder covered by eccentric dielectric cylinder p168
Reconfigurable reflector antenna producing pattern nulls p121
Simplified analysis of coated wire antennas and scatterers p14
Variable beamwidth reflector antenna by feed defocusing p394

SUPERCONDUCTING MATERIALS AND DEVICES

Comparative study on electrical performance of normal and superconducting multiconductor lines for high-speed interconnects and uniplanar MICs p71
Experimental investigation of the 'post mount' structure in waveguide-type SIS mixers p339
Improving efficiencies of superdirective arrays of monopoles over lossy groundplanes by using superconducting disc overlays p462
Power handling capability of a HTS stripline structure using an efficient interior-exterior Green's function method p472
Supergain printed arrays of closely spaced dipoles made of thick film high-T_c superconductors p26

TRANSMISSION LINE THEORY

Analysis of 3D microwave cavities using hierarchal vector finite elements p373
Analysis of periodic fin line resonators p411
Application of the transmission line matrix method to the analysis of scattering by three-dimensional objects p319
Calculation of dielectric resonators with complicated constitutive parameters p477
Cavity feed technique for slot-coupled microstrip patch array antenna p452
Comparative study on electrical performance of normal and superconducting multiconductor lines for high-speed interconnects and uniplanar MICs p71
Comparison between a quasistatic space-domain analysis and a full-wave spectral-domain analysis for high-frequency interconnecting crossover in multilayered dielectric media p275
Complete scattering parameter characterisation by FDTD method of Y-junction power dividers with small output angles p379
Computation of coupling between whispering gallery mode dielectric resonators and a microstrip transmission line p265
Coplanar coupled lines: the effects of the presence of the lateral ground planes, upper and lower ground planes, and the V-shaped microshield ground walls p63
Design of integrated waveguide twist components p345
Eigensusceptances and eigenreactances of symmetrical waveguide inductive obstacles using the finite element method p384
Evaluation of cut-off frequencies of higher order modes in eccentric coaxial line p350
Hybrid mode analysis of parallel coupled inset dielectric guides p57
Modified spectral-domain approach for microstrip lines with finite metallisation thickness and conductivity p357
Multimode equivalent network representation of inductive and capacitive multiple posts p41
Multiple aperture higher order mode couplers: analysis and design p93
Performance of the LSBRM using efficient weighting functions for planar structures p364
Power handling capability of a HTS stripline structure using an efficient interior-exterior Green's function method p472
Q-factor measurement with a scalar network analyser p369
Scattering characteristics of rectangular coaxial line discontinuities p257
Single-cavity abreast two-device power combiner p333
Theory of excitation of chirowaveguides p240
Vector complex eigenmode analysis of microwave cavities p457

WAVEGUIDE COMPONENTS

Analysis of 3D microwave cavities using hierarchal vector finite elements p373
Analysis of periodic fin line resonators p411
Calculation of dielectric resonators with complicated constitutive parameters p477
Complete scattering parameter characterisation by FDTD method of Y-junction power dividers with small output angles p379
Design of integrated waveguide twist components p345
Eigensusceptances and eigenreactances of symmetrical waveguide inductive obstacles using the finite element method p384
Experimental investigation of the 'post mount' structure in waveguide-type SIS mixers p339
High Q-factor open resonator measurement system for 94 GHz waveband applications p414
Hybrid mode analysis of parallel coupled inset dielectric guides p57
Improved frequency domain analysis of microstrip circuits by the method of moments p421
Innovative power distributed amplifier using the Wilkinson combiner p97
Multiple aperture higher order mode couplers: analysis and design p93
Novel slow-wave structure for narrow-band quasi-transversal filters p389
Performance and analysis of an aluminium nitride isolation resistor p282
Q-factor measurement with a scalar network analyser p369
Scattering characteristics of rectangular coaxial line discontinuities p257
Single-cavity abreast two-device power combiner p333
Temperature stability of quality factor of junction circulators p67
Waveguide bandpass filter of millimetre waves using polycrystalline yttrium iron garnet p251

WAVEGUIDES

Comparison between a quasistatic space-domain analysis and a full-wave spectral-domain analysis for high-frequency interconnecting crossover in multilayered dielectric media p275
Computation of coupling between whispering gallery mode dielectric resonators and a microstrip transmission line p265
Coplanar coupled lines: the effects of the presence of the lateral ground planes, upper and lower ground planes, and the V-shaped microshield ground walls p63
Hybrid mode analysis of parallel coupled inset dielectric guides p57
Linear phase arrays based on slitted asymmetric ridge waveguides p47
Modified spectral-domain approach for microstrip lines with finite metallisation thickness and conductivity p357
Moment method analysis of a horizontally polarised omnidirectional slot array antenna p1
Multimode equivalent network representation of inductive and capacitive multiple posts p41
On the surface impedance used to model the conductor losses of microstrip structures p35
Power handling capability of a HTS stripline structure using an efficient interior-exterior Green's function method p472
Scattering characteristics of rectangular coaxial line discontinuities p257
Theory of excitation of chirowaveguides p240